

WHAT IS CLAIMED IS:

*3,10* > 1. A method of manufacturing an image display apparatus having an airtight container including a face plate and a rear plate having a plurality of electron-emitting devices, and a face plate disposed in opposition to the rear plate and has a phosphor and an electroconductive film, the method comprising the steps of:

10 disposing the rear plate having the plurality of electron-emitting devices and the face plate having the phosphor and the electroconductive film such that the rear plate and the face plate are opposite to each other and arranging a plurality of plate shaped spacers between the rear plate and the face plate to assemble 15 the airtight container; and

20 applying an electric field between the rear plate and the face plate in a state that the airtight container is slanted such that a longitudinal direction of the plate-shaped spacers is not in vertical to a gravitational direction.

2. A method of manufacturing an image display apparatus according to claim 1, wherein when the image display apparatus is driven, an electric field is lower 25 than that applied between the rear plate and the face plate.

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3. A method of manufacturing an image display apparatus according to claim 2, wherein when the image display apparatus is driven, an electric field is 1/10 to 1/2 of that applied between the rear plate and the 5 face plate.

4. A method of manufacturing an image display apparatus, in which a rear plate and a face plate are opposite to each other to form an airtight container, 10 an electron beam source including a plurality of cold cathode electron-emitting devices is formed in the rear plate, a phosphor is formed in the face plate, and a voltage is applied between the rear plate and the face plate to irradiate an electron beam into the phosphor 15 in order to emit light from the phosphor, comprising:

at least a foreign matter removing step of removing a foreign matter entered into the airtight container from a portion to which the voltage is applied.

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5. A method of manufacturing an image display apparatus according to claim 4, wherein the foreign matter removing step is performed after the airtight container is assembled and before the airtight 25 containers vacuumed.

6. A method of manufacturing an image display

apparatus according to claim 4, wherein the foreign matter removing step is performed after the airtight container is assembled, vacuumed, and sealed.

5        7. A method of manufacturing an image display apparatus according to claim 5, wherein the foreign matter removing step is performed in a state that an inner pressure of the airtightainer is an atmospheric pressure or a state that the inner pressure is a negative pressure against an outer pressure.

10        8. A method of manufacturing an image display apparatus according to claim 4, wherein the foreign matter removing step includes,

15        a first step of desorbing the foreign matter in the airtight container, and  
              a second step of moving the foreign matter from the portion to which the high voltage is applied.

20        9. A method of manufacturing an image display apparatus according to claim 8, wherein in the first step, the foreign matter is desorbed by a physical impact application.

25        10. A method of manufacturing an image display apparatus according to claim 8, wherein the first step includes a step of alternately applying a negative

voltage and a positive voltage to an image region of one of the face plate and the rear plate.

11. A method of manufacturing an image display  
5 apparatus according to claim 8, wherein the first step  
is performed in a state the vacuum (airtight) container  
is slanted to move the foreign matter by self weight  
falling.

10 12. A method of manufacturing an image display  
apparatus according to claim 11, wherein the image  
display apparatus has a spacer for resisting an  
atmospheric pressure in the inner portion of the  
airtight container, and

15 the airtight container is slanted such that the  
spacer allows movement of the foreign matter and such  
that a slant direction of the airtight container is  
substantially aligned with an extension direction of  
the spacer.

20 13. A method of manufacturing an image display  
apparatus according to claim 8, wherein in the second  
step, using a gas supply pipe and an exhaust pipe,  
which are provided in the vacuum container, a gas of a  
25 viscosity flow region is flowed through a supply inlet  
of the gas supply pipe and an exhaust outlet of the  
exhaust pipe in the vacuum container to move the

foreign matter.

14. A method of manufacturing an image display apparatus according to claim 4, wherein the electron beam source is a surface conduction type electron-emitting device.

15. An image display apparatus having an airtight container in which a rear plate and a face plate are opposite to each other, an electron beam source including a plurality of cold cathode electron-emitting devices is formed in the rear plate, and a phosphor for emitting light by being irradiated with an electron beam is formed in the face plate,

wherein the foreign matter is unevenly distributed in a non-high voltage application region relatively to a high voltage application region in the airtight container.

16. An image display apparatus according to claim 15, wherein the foreign matter is unevenly distributed outside an image region relatively to inside of the image region.